

# **ABSTRACT**

## **For**

### **TRANSMISSION DIVERSITY**

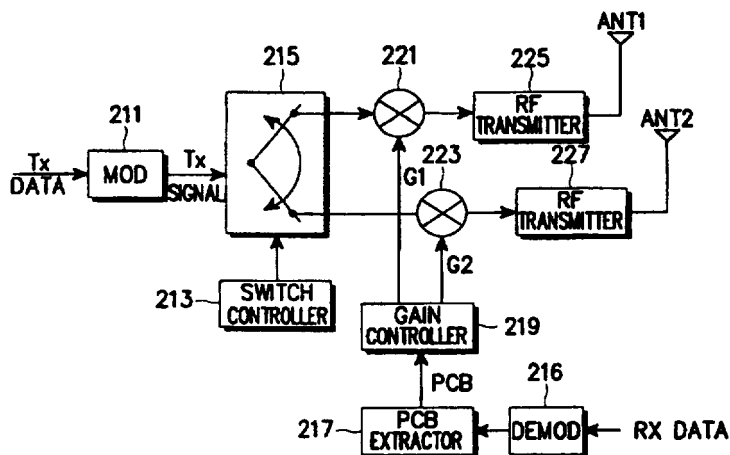
The present invention is based on the idea that the base transceiver station can make a decision as to changing transmission diversity in response to the power control message sent by the mobile station. The decision to change transmission diversity is made, for instance, on the basis of the result obtained from filtering the power control requests. For example, filtering can be carried out using a sliding window that contains power control information on the basis of which the decision is made. It is not necessary for the mobile station to transmit a special request to change transmission diversity; instead, the decision on changing transmission diversity is made by the base transceiver station in response to the power control information that the mobile station would, in any case, send to the base transceiver station.



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(54) Title: FORWARD LINK POWER CONTROL DEVICE AND METHODS FOR A MOBILE COMMUNICATION SYSTEM SUPPORTING TRANSMISSION DIVERSITY



## (57) Abstract

A forward link power control device for a mobile communication system supporting a transmission diversity function. The power control device comprises a base station device and mobile station device. The base station device transmits a traffic signal via at least two antennas, switches the traffic signal to be transmitted to any one of the two antennas based on a power control group period, and equally controls transmission power of the traffic signal being transmitted to the antennas according to power control information received via a reverse link. The mobile station device receives signals output from the antennas of the base station using one antenna, separately measures power of a traffic signal and an interference signal received for a power control group duration which is at least twice an antenna switching time of the base station device, averages the measured value to generate a power control information and multiplexes the power control information to a reverse link transmission signal to transmit the power control information to the base station.